

IN THE CLAIMS:

1. (Currently Amended) A pressure welding machine comprising:

~~with~~ a frame (10); ;

two welding heads (13, 14), which are movable along a feed axis (41); ~~and~~ ;

~~with~~ two adjusting units (17, 18) with feed drives (23) for said welding heads (13, 14),

5 ~~characterized in that~~ said two adjusting units (17, 18) ~~are~~ being mounted axially movably at ~~the~~
~~same said~~ frame (10) ;

a common adjusting element; and

an adjusting drive, said adjusting units being [[are]] connected among one another to
[[an]] said adjusting drive (25) by means of [[a]] said common adjusting element (26) and being
10 [[are]] supported.

2. (Currently Amended) A pressure welding machine in accordance with claim 1,
~~characterized in that~~ wherein said adjusting element (26) is designed as a continuous spindle (27)
with two threads (28, 29), which are directed in opposite directions and are connected to nuts
(21, 22) at said adjusting units (17, 18).

3. (Currently Amended) A pressure welding machine in accordance with claim 1 ~~or~~ 2,
~~characterized in that~~ wherein said threads (28, 29) are designed as motion threads, ~~especially~~
as comprising ball or trapezoid threads.

4. (Currently Amended) A pressure welding machine in accordance with claim 1,~~2 or~~
3, ~~characterized in that~~ wherein said spindle (27) is arranged under said welding heads (13, 14)
and said adjusting units (17, 18) in ~~[[said]]~~ machine bed (11) of said frame.

5. (Currently Amended) A pressure welding machine in accordance with ~~one of the~~
~~above claims~~ claim 1, ~~characterized in that~~ wherein said adjusting drive (25) has a controllable
motor (30), ~~especially~~ comprising an electric motor, for driving said spindle (27).

6. (Currently Amended) A pressure welding machine in accordance with ~~one of the~~
~~above claims~~ claim 1, ~~characterized in that~~ wherein said frame (10) has a carriage guide (12)
for the positive-locking mounting and guiding of travel carriages (14, 16, 19, 20) of the welding
heads (13, 14) and said adjusting units (17, 18).

7. (Currently Amended) A pressure welding machine in accordance with ~~one of the~~
~~above claims~~ claim 6, ~~characterized in that said pressure welding machine (1) has~~ further
comprising a mobile central clamping device (5) for a central workpiece (2), which is mounted
movably at said carriage guide (12) and guided between said welding heads (13, 14).

8. (Currently Amended) A pressure welding machine in accordance with ~~one of the~~
~~above claims~~ claim 7, ~~characterized in that~~ wherein said central clamping device (5) has two
spaced workpiece holders (6, 7), which have holder carriages (8, 9) mounted movably at said

carriage guide (12).

9. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ wherein said workpiece holders (6, 7) are connected to ~~their said~~ respective associated adjusting unit (17, 18) by a carriage adjuster (31, 32).

10. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 9, ~~characterized in that~~ wherein said carriage adjusters (31, 32) have a carrier (33) and a spring (34) for relative evading motions at the connection point with said workpiece holder (6, 7).

11. (Currently Amended) A pressure welding machine, ~~especially~~ in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that said pressure welding machine (1) has~~ further comprising a measuring means (35) for measuring the true feeds and the pure workpiece shortening without elastic deformation.

12. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 11, ~~characterized in that~~ wherein said measuring means (35) has at least one measuring unit (36, 37) arranged between a workpiece holder (6, 7) and said associated welding head (13, 14).

13. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 12, ~~characterized in that~~ wherein said measuring unit (36, 37) has a scale (38) and a measuring head (39), which are arranged movably in relation to one another at said workpiece holder (6, 7) and at said associated welding head (13, 14).

14. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 11, ~~characterized in that~~ wherein said measuring means (35) has a central measuring unit (40) between said workpiece holders (6, 7) and/or said welding heads (13, 14).

15. (Currently Amended) A pressure welding machine in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ ~~characterized in that~~ said pressure welding machine (1) ~~is designed as~~ further comprises a friction welding machine or as a machine for welding with moving arc.

16. (Currently Amended) A method for pressure welding a plurality of said workpieces (2, 3, 4) along a, preferably common feed axis (41) ~~by means of~~, the method comprising:

providing a pressure welding machine (1) with a frame (10), two said welding heads (13, 14) movable along a feed axis (41), and two said adjusting units (17, 18) with feed drives (23) for said welding heads (13, 14), ~~characterized in that~~ ;

moving said outer workpieces (3, 4) ~~are moved~~ relative to one another by said two adjusting units (17, 18) mounted axially (41) movably at said frame (10), ~~wherein~~;

mutually supporting said adjusting units ~~(17, 18)~~ ~~are mutually supported~~ in an adjustable manner while absorbing the pressure welding forces in a closed system of forces.

17. (Currently Amended) A method in accordance with claim 16, ~~characterized in that~~ wherein said adjusting units ~~(17, 18)~~ and a central clamping device ~~(5)~~ are positioned simultaneously and synchronously for a central workpiece ~~(2)~~.

18. (Currently Amended) A method in accordance with claim ~~16~~ or 17, ~~characterized in that~~ wherein the true feeds and the workpiece shortenings are measured during pressure welding without the elastic deformations of said central workpiece ~~(2)~~ that occur during upsetting.